

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/112628 A1

(51) International Patent Classification⁷: **A61B 18/18**

(21) International Application Number:
PCT/GB2004/002620

(22) International Filing Date: 18 June 2004 (18.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0314631.3 23 June 2003 (23.06.2003) GB

(71) Applicant (for all designated States except US): **MICROSULIS LIMITED** [GB/GB]; Microsulis House, Parklands Business Park, Denmead, Hampshire PO7 6XP (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **CRONIN, Nigel** [GB/GB]; 14 Englishcombe Lane, Bath BA2 2ED (GB).

(74) Agents: **HOGG, Jeffery, Keith** et al.; Withers & Rogers, Goldings House, 2 Hays Lane, London SE1 2HW (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

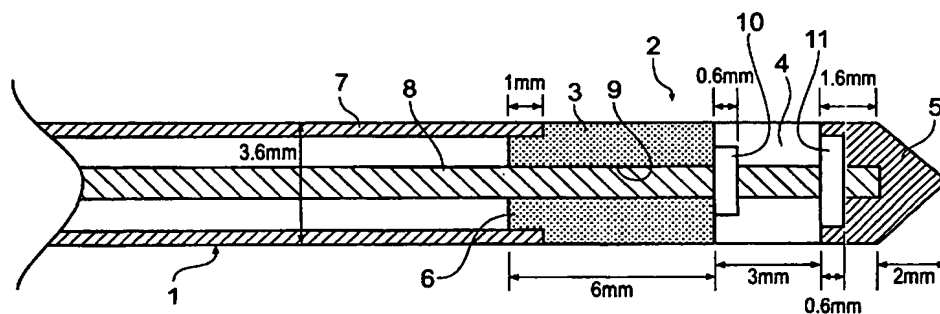
Published:

- with international search report
- with amended claims

Date of publication of the amended claims: 3 February 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **RADIATION APPLICATOR FOR MICROWAVE MEDICAL TREATMENT**



(57) Abstract: A radiation applicator with a dielectric body (2) surrounding the antenna. The dielectric body (2) is comprised of three sections (3, 4 and 5) with different dielectric constants to provide broad-band matching of the applicator to surrounding material. Washers (10) and (11) are mounted on the antenna to act as reflectors.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/112628 A1

(51) International Patent Classification⁷: **A61B 18/18**

(21) International Application Number:
PCT/GB2004/002620

(22) International Filing Date: 18 June 2004 (18.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0314631.3 23 June 2003 (23.06.2003) GB

(71) Applicant (for all designated States except US): **MICRO-SULIS LIMITED** [GB/GB]; Microsulis House, Parklands Business Park, Denmead, Hampshire PO7 6XP (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **CRONIN, Nigel** [GB/GB]; 14 Englishcombe Lane, Bath BA2 2ED (GB).

(74) Agents: **HOGG, Jeffery, Keith et al.**; Withers & Rogers, Goldings House, 2 Hays Lane, London SE1 2HW (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

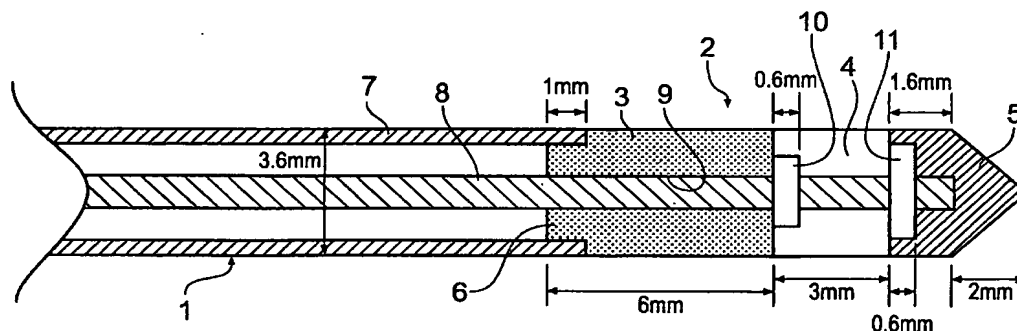
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: RADIATION APPLICATOR FOR MICROWAVE MEDICAL TREATMENT



(57) Abstract: A radiation applicator with a dielectric body (2) surrounding the antenna. The dielectric body (2) is comprised of three sections (3, 4 and 5) with different dielectric constants to provide broad-band matching of the applicator to surrounding material. Washers (10) and (11) are mounted on the antenna to act as reflectors.

WO 2004/112628 A1